



## 16pin 128 X 64 Monochrome LCD Display 12864 COG LCD Graphic Modules

### Our Product Introduction

#### Basic Information

- Place of Origin: ShenZhen, China
- Brand Name: Chenghao/Oem
- Certification: ROHS ISO9001 CE
- Model Number: CH130-2864KSWLG22X VER
- Minimum Order Quantity: 100 pcs
- Price: /
- Packaging Details: All the products are packed in right way to keep it safe. For small sizes of products we use tray + carton, For bigger sizes we use foam slot + carton. we also design packages according to customers' requirements
- Delivery Time: 7-15 working days
- Payment Terms: T/T
- Supply Ability: 300Kpcs/month



#### Product Specification

- Product Name: 12864 COG Lcd
- Display Mode: Passive Matrix
- Display Color: Monochrome -White
- Drive Duty: 1/64 Duty
- Number Of Pixels: 128 X 64
- Panel Size: 34.5 23.0 1.4 Mm
- Active Area: 29.42 14.7 Mm
- Pixel Pitch: 0.23 0.23 Mm
- Highlight: 16pin Monochrome LCD Display ,  
128 x 64 Monochrome LCD Display ,  
Passive Matrix 12864 COG LCD



#### More Images



## Product Description

### 12864 Monochrome LCD Display 16pin 1.3 inch 128\*64 LCD COG Graphic Modules

#### 1. Basic Specifications

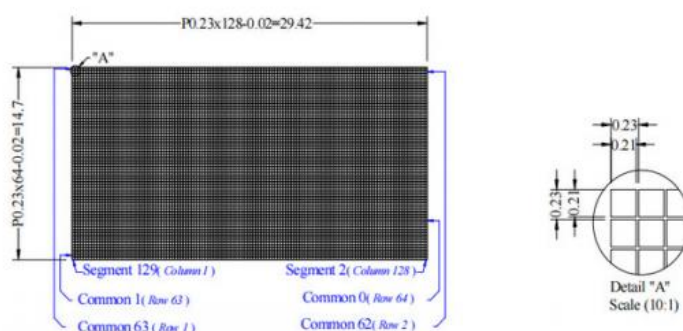
##### 1.1 Display Specifications

- 1) Display Mode: Passive Matrix
- 2) Display Color: Monochrome (White)
- 3) Drive Duty: 1/64 Duty

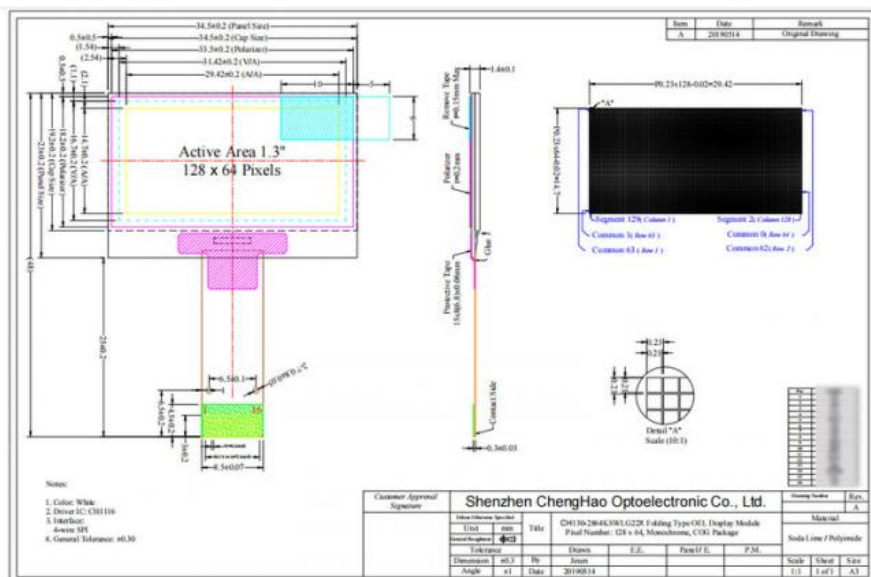
##### 1.2 Mechanical Specifications

- 1) Outline Drawing: According to the annexed outline drawing
- 2) Number of Pixels: 128 64
- 3) Panel Size: 34.5 23.0 1.4 (mm)
- 4) Active Area: 29.42 14.7 (mm)
- 5) Pixel Pitch: 0.23 0.23(mm)
- 6) Pixel Size: 0.21 0.21(mm)
- 7) Weight: 2.18 (g)

##### 1.3 Active Area / Memory Mapping & Pixel Construction



#### 1.4 Mechanical Drawing



#### 2. Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Logic	V <sub>DD</sub>	-0.3	4	V	1, 2
Supply Voltage for Display	V <sub>CC</sub>	0	14	V	1, 2
Supply Voltage for DC/DC	V <sub>BAT</sub>	0.3	5	V	1, 2
Operating Temperature	T <sub>OP</sub>	-40	85	°C	
Storage Temperature	T <sub>STG</sub>	-40	85		3
Life Time (120 cd/m <sup>2</sup> )		10,000	-	hour	4

Life Time (80 cd/m <sup>2</sup> )		30,000	-	hour	4
Life Time (60 cd/m <sup>2</sup> )		50,000	-	hour	4

Note 1: All the above voltages are on the basis of "V<sub>SS</sub> = 0V".

Note 2: When this module is used beyond the above absolute maximum ratings, permanent breakage of the module may occur. Also, for normal operations, it is desirable to use this module under the conditions according to Section 3. "Optics & Electrical Characteristics". If this module is used beyond these conditions, malfunctioning of the module can occur and the reliability of the module may deteriorate.

Note 3: The defined temperature ranges do not include the polarizer. The maximum withstood temperature of the polarizer should be 80 C.

Note 4: V<sub>CC</sub> = 12.0V, T<sub>a</sub> = 25°C, 50% Checkerboard.

Software configuration follows Section 4.4 Initialization.

End of lifetime is specified as 50% of initial brightness reached. The average operating lifetime at room temperature is estimated by the accelerated operation at high temperature conditions.

### 3.. Optics & Electrical Characteristics

#### 3.1 Optics Characteristics

Characteristics	Symbol	Conditions	Min	Typ	Max	Unit
Brightness (V <sub>CC</sub> Supplied Externally)	Lbr	Note 5	100	-	-	cd/m <sup>2</sup>
Brightness (V <sub>CC</sub> Generated by Internal DC/DC)	Lbr	Note 6	90	110	130	cd/m <sup>2</sup>
C.I.E. (White)	(x) (y)	C.I.E. 1931	0.25 0.27	0.29 0.31	0.33 0.35	
Dark Room Contrast	CR			2000:1		
Viewing Angle				Free		degree

\* Optical measurement taken at V<sub>DD</sub> = 2.8V, V<sub>CC</sub> = 12V & 9V.

Software configuration follows Section 4.4 Initialization.

#### 3.2 DC Characteristics

Characteristics	Symbol	Conditions	Min	Typ	Max	Unit
Supply Voltage for Logic	V <sub>DD</sub>		1.65	2.8	3.3	V
Supply Voltage for Display (Supplied Externally)	V <sub>CC</sub>	Note 5 (Internal DC/DC Disable)	-	12	-	V
Supply Voltage for DC/DC	V <sub>BAT</sub>	Internal DC/DC Enable	3.5	-	4.2	V
Supply Voltage for Display (Generated by Internal DC/DC)	V <sub>CC</sub>	Note 6 (Internal DC/DC Enable)	6.4	-	9	V
High Level Input	V <sub>IH</sub>	I <sub>OUT</sub> = 100μA, 3.3MHz	≥ 0.8 V <sub>DD</sub>	-	V <sub>DD</sub>	V
Low Level Input	V <sub>IL</sub>	I <sub>OUT</sub> = 100μA, 3.3MHz	0	-	0.2 V <sub>DD</sub>	V
High Level Output	V <sub>OH</sub>	I <sub>OUT</sub> = 100μA, 3.3MHz	0.9xV <sub>DD</sub>	-	V <sub>DD</sub>	V
Low Level Output	V <sub>OL</sub>	I <sub>OUT</sub> = 100μA, 3.3MHz	0	-	0.1 V <sub>DD</sub>	V
Operating Current for V <sub>DD</sub>	I <sub>DD</sub>		-	180	300	μA
Operating Current for V <sub>CC</sub> (V <sub>CC</sub> Supplied Externally)	I <sub>CC</sub>	Note 7	-	17	28	mA
Operating Current for V <sub>BAT</sub> (V <sub>CC</sub> Generated by Internal DC/DC)	I <sub>BAT</sub>	Note 8	-	45	50	mA
Note 8	I <sub>DD, SLEEP</sub>		-	1	5	μA
Sleep Mode Current for V <sub>CC</sub>	I <sub>CC, SLEEP</sub>		-	2	10	μA

Note 5 & 6: Brightness (Lbr) and Supply Voltage for Display (V<sub>CC</sub>) are subject to the change of the panel characteristics and the customer's request.

Note 7: V<sub>DD</sub> = 2.8V, V<sub>CC</sub> = 12V, I<sub>REF</sub>=910K 100% Display Area Turn on.

Note 8: V<sub>DD</sub> = 2.8V, V<sub>CC</sub> = 9V, I<sub>REF</sub>=560K 100% Display Area Turn on.

\* Software configuration follows Section 4.4 Initialization.

#### FAQ

Q1: Do you accept customization displays and touch screens?

A: Sure, you can customization the FPC,Backlight and the touch screen.

Q2: What type of interface is your display screen?

A: Small sized of displays generally support SPI,MCU,RGB,MIPI.Medium sized displays generally support LVDS,MIPI,EDP.Different specifications use different interfaces.

Q3: Do you used capacitive touch screen or resistive touch screen.

A: We have capacitive touch screen and resistive touch screen .

Q4: What is your sample policy?

A: If there is stock,you can sample at any time,if there is no stock,it will take some time,and then wait for the materials to come back to sample. But the customer needs to pay the sample fee and express fee.

Q5: How long is your lead time for mass production?

A: It takes about 20 - 45 working days for mass production,depending on the model and order quantity.



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